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News Summary

This issue is in two parts. A calendar of events in academe in the fall and winter of 1986-1987 will be found in a pull-out section following Page 40.

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Research shows that aging is often a gratifying experience, sociologists say. Story on Page 4.

Psychologists should pay more attention to evidence and less to ideology in their research, a social-science panel says. Story on Page 4.

Tax-reform legislation would have an impact on loans for educational expenses and scholarship aid to students. Stories on Page 11.

This fall's ballots in several states contain proposals that could mean cuts in spending on higher education. Story on page 11.

Harvard University celebrated its 350th birthday with entertainment and ceremony. Story on Page 40.

A Harvard alumnus criticizes some of the university's financial policies and procedures in a new book. Story on Page 19.

The head of Harvard's liberal student paper is supporting similar publications for other campuses. Story on Page 27.

Corporate executives want to spread the word that the liberal arts provide good preparation for business careers. Story on Page 42.

Developing countries subsidize higher education at the expense of primary education, a World Bank report says. Story on Page 35.

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TOMORROW'S PROFESSORIATE

Women Flock to Graduate School in Record Numbers, but Fewer Blacks Are Entering the Academic Pipeline

Blacks

By SCOTT HELLER

If ever there were a time for colleges and universities to increase the number of minority-group members on their faculties—especially blacks—this is it.

Chances are it won't happen.

Instead, the new generation of professors that will oversee America's college classrooms by the year 2000 could be as homogeneous as previous generations, even though, in some states, the majority of students they teach will come from minority groups.

One-third or more of the professoriate will have to be replaced by the end of the century. In the process, many college and university officials would like to remedy the present dearth of minority-group members.

Yet when they look ahead at the potential pool of applicants—the graduate students who are now entering doctoral programs—they see fewer members of certain underrepresented minority groups.

Graduate deans and affirmative-action officers call it "the pipeline problem," and it's getting worse.

"We have the potential for achieving parity for minority faculty, but if we don't

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Minorities and Women in Graduate School

	1976-77	1984-85	Change
Blacks	65,352	52,834	– 19.2%
Hispanics	20,274	24,402	+ 20.4%
Asians	18,487	28,543	+ 54.4%
Women	467,155	503,525	+ 7.8%

Note: Figures include U.S. citizens only.

SOURCE: CENTER FOR STATISTICS, U.S. DEPARTMENT OF EDUCATION

Women

By LIZ McMILLEN

No one in academe has more potential for advancement today than young female scholars. But some observers fear the potential may not be realized.

Women are flocking to graduate school in record numbers, and many are specializing in fields that were dominated by men a dozen years ago. Today, women are earning one-third of all the doctoral degrees awarded.

As a result, when higher-education institutions look for replacements for the large number of senior professors who will retire within the next 15 years, plenty of female faculty members will be available.

Many academic administrators consider the future job market a "golden opportunity" for universities to increase the representation of women on their faculties. That

Continued on Page 25, Column 1

White Campuses in South Africa Fear New Levels of Violence

By HELEN ZILLE

CAPE TOWN

A day-long series of confrontations between student protesters at the University of the Witwatersrand and South African police has raised the threat of new levels of violence on the country's predominantly white, English-language campuses.

"We have not previously experienced the deliberate provocation of a police response through stoning of police and vehicles in the street," R. W. Charlton, a deputy vice-chancellor, said last week. "This could escalate in a way that would be entirely unmanageable if we do not stop it."

The conflict erupted after some 600 students attended a campus meeting organized by the Black Students Society to mourn the deaths of between 20 and 30 residents of Soweto, the black township near Johannesburg.

Students Stone Police

Most of the dead had been shot by police during confrontations sparked by resistance to the eviction of tenants who were participating in a politically motivated "rent boycott" campaign. One member of the Soweto council, seen by many blacks as a body that is a puppet of the white government, was hacked to death by the angry crowd.

After the commemorative meeting, about 200 students attempted to march down a main public road adjacent to the university, thus attracting police attention. In the incidents that followed during the course of the day, students stoned the police, who repeatedly charged onto the campus, using sjamboks—short whips—to disperse groups of protesters.

In a separate incident, a group of students punched and stoned the president of a conservative organization, the National Student Federation, which has generated deep resentment among black students at South Africa's predominantly white, English-language universities. The president, Philip Powell, is a student at the University of Natal's campus in Pietermaritzburg. He was observing events at Witwatersrand.

In another incident, a student, Kevin Todes, fired a shot at a group of demonstrators, some of whom had stoned his car as he attempted to drive away from the scene of the protest. A student leader who witnessed the incident said Mr. Todes had driven "rather aggressively" through the crowd in an attempt to move his vehicle.

No one was injured, but the shot sparked "general panic," according to a statement by the university's vice-chancellor, Karl Tober, detailing the day's events.

"The police then fired a tear-smoke canister and moved on to the campus," Mr. Tober said.

Mr. Charlton and other university officials intervened and negotiated a police withdrawal from the campus in an attempt to avoid further conflict.

Protesting students then discovered that Mr. Powell of the National Student Feder-

Continued on Page 37, Column 1

About 400 Freshman Athletes in Big-Time Sports Are Ineligible to Compete Under New Rules

By CHARLES S. FARRELL

About 400 freshmen at colleges with big-time sports programs are ineligible to play football or basketball this year because they did not meet the National Collegiate Athletic Association's new academic requirements—more than 10 per cent of the incoming freshman players at institutions in the association's Division I, according to most estimates.

An overwhelming majority of the ineligible players are black.

The estimate is based on surveys conducted by several newspapers, including the New York *Times*, *USA Today*, the *Daily Oklahoman*, and the Dallas *Times Herald*.

The N.C.A.A. will compile official figures later in the academic year.

Most observers are not surprised by the numbers, which represent about 10 per cent of all freshman football players and about 13 per cent of all freshman players in men's basketball, according to the newspapers' figures.

With a few notable exceptions, most institutions are permitting the ineligible players to accept athletic scholarships, although they will not be allowed to play or practice with their teams and will lose a year of sports eligibility.

After a trying summer, the University of Maryland's chancellor says he has learned a lot about his role in athletics. Page 30.

The new standards require freshman athletes to have a 2.0 grade-point average in a high-school core curriculum of 11 academic courses, plus a score of at least 700 on the combined Scholastic Aptitude Test or 15 on the American College Testing Program's examination, to be eligible for competition. The full effect of the rules is being

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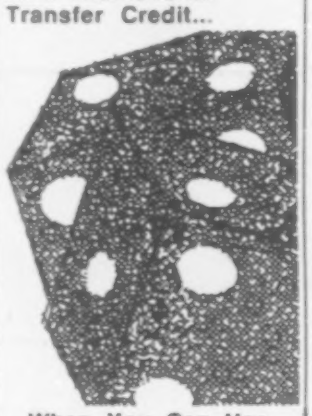

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Fewer Blacks Are Entering the Academic Pipeline

Continued from Page 1

have the faculty there to hire, then the chance will be lost," warns Reginald Wilson, director of the Office of Minority Concerns at the American Council on Education. "Unless there is a substantial change in the production of black and Hispanic Ph.D.'s, that parity won't be achieved."

Blacks made up 4 per cent of the nation's faculty members in 1983, down from 4.3 per cent in 1977, according to a forthcoming report by the council. Hispanics accounted for 1.8 per cent, and Asians 3.5 per cent.

According to the Department of Education's Center for Statistics, blacks made up 4.8 per cent of graduate-school enrollments in 1984, down from 6 per cent in 1976.

In the same period, the proportion of Hispanics rose from 1.8 to 2.2 per cent, although it has leveled off recently. The proportion of Asians was up—from 1.7 to 2.6 per cent.

The number of blacks earning doctorates has held steady through the 1980's, according to the National Research Council. In 1985, 909 black Americans received Ph.D.'s, compared with 20,641 whites. In addition, doctorates were awarded to about 500 blacks from other countries.

Few of those degrees, however, were awarded in the natural or physical sciences, where the shortages of faculty members are most severe—and where academe must compete with high-paying industry for talent. More than half of the degrees were earned in education.

Moral and Social Support

Recognizing that today's graduate student is tomorrow's professor, some institutions have begun working to convince minority-group members that faculty careers will, in the future, be prestigious, rewarding, and available.

Their efforts center on increased financial support in the form of graduate and postdoctoral fellowships. They are also becoming more sensitive to the moral and social support needed to encourage such students to persevere through a completed degree.

In their book *American Professors: A National Resource Imperiled*, Howard R. Bowen and Jack H. Schuster call for a wide-ranging national fellowship program to identify and support minority students interested in academic careers.

"Unless this is done," they write, "affirmative-action policies, even if carried out in good faith by campuses, will be inadequate to prevent serious erosion in the numbers and quality of minorities in the academic profession."

No such program has been created, and affirmative-action officers widely bemoan the lack of national leadership on the matter. Still, they do see signs of hope in model programs, consortium arrangements, and foundation support.

Receiving high praise is the McKnight Foundation's Black Doctoral Fellowship Program, which provides $15,000 in annual support to each of 25 black students seeking to attend doctorate-granting institutions in Florida. The program emphasizes study in the arts and sciences, business, and engineering.

The success of the program, which began in 1984, has been immediate, according to its executive director, Israel Tribble. While Florida's public institutions have produced one black engineering Ph.D. in the last five years, he says, the McKnight program is now sponsoring 11 students in engineering programs.

"That is the kind of consistent output that will make a difference, at least in the pool" of minority Ph.D.'s, says Mr. Tribble. "I can't guarantee that higher ed is going to hire them all, because I don't know if higher ed is willing to match their offers from private industry."

Support for the fellowship program, as well as for several other programs sponsored by the Minnesota-based foundation, will shift to the Florida state government in 1987. By then the program's endowment will exceed $15-million.

Legislatures in Connecticut, Michigan, and New Jersey have made money available for new graduate fellowships, as well. New Jersey's Minority Academic Career Program is seen as a model, because it forgives students one-quarter of their loans for each year they teach in the state after receiving their degree.

Says an enthusiastic Mr. Wilson: "They're trying to build professors. They're not just trying to build Ph.D.'s."

Last year the Ford Foundation and the National Research Council announced a $9-million fellowship program to support 120 minority-group doctoral candidates over a five-year period. The fellowships will include an annual stipend of $10,000 and an additional $6,000 for tuition and fees.

The foundation continues to support a postdoctoral program to help those and other students become more competitive for top faculty jobs.

"The postdoctoral program helps minority scholars who have already embarked upon academic careers," says Franklin A. Thomas, the foundation's president. "Our new program moves farther back along the educational pipeline."

Such programs join such well-established federal efforts as the Department of Education's Graduate Professional Opportunities Program, and those supported by the National Science Foundation in such fields as environmental biology and engineering.

Exchanging Names

Individual universities and consortia are investigating the issue as well, beginning by exchanging the names of promising minority doctoral students. Interest is high in California, where minority-group members are expected to outnumber whites by the the turn of the century.

The University of California has "come to grips with the realization that the next couple of decades will provide the first opportunity that American universities will have to change the demographic profile of the faculty," says Michele W. Zak, director of faculty development and affirmative action. "We look at that and look at the profile of the Ph.D.'s, and we realize that we'll lose that opportunity unless we take very specific actions in the near future."

The system expects more than 6,000 faculty retirements by 2004, Ms. Zak says. To insure that minority-group members are among the new professors hired as replacements, this fall the university will put into effect the Academic Career Development Program to encourage young, minority scholars to consider faculty careers.

MC KNIGHT FOUNDATION

Israel Tribble: "Most black students, unless they come from a very affluent family, don't know anything about graduate school."

AMERICAN COUNCIL ON EDUCATION

Reginald Wilson: "They're trying to build professors. They're not just trying to build Ph.D.'s."

The system will identify talented college juniors and seniors and alert them to the opportunities in graduate education.

Faculty mentors will try to publish jointly with graduate students and urge them to stay visible within the discipline—anything, Ms. Zak says, "to help develop attractive candidates for that ultimate faculty position."

"What we're hoping," she adds, "is that we will identify students at age 19 and 20 and provide the constant support and mentoring that will keep them going through the whole grind."

Since 1978, the Committee on Institutional Cooperation, made up of representatives from the Big 10 universities plus the University of Chicago, has sponsored a fellowship program that has helped support 330 minority students through graduate programs in science, engineering, and mathematics.

"There is something of a growing sense of crisis about minority faculty within our institutions—that the levels, instead of growing, are slipping a little bit," says Roger G. Clark, executive director of the committee. "This is not a recruiting device for our institutions' faculty. But the larger the national pool, the more our own institutions will get."

The fledgling National Consortium for Educational Access intends to identify minority undergraduates at 26 historically black colleges and help support them through Ph.D. programs at nine research universities. Located mostly in the South, the research institutions are Atlanta University, Duke University, the University of Georgia, Georgia Institute of Technology, Howard University, the University of Massachusetts at Amherst, the University of North Carolina at Chapel Hill, the University of Pittsburgh, and Texas Southern University.

The consortium will also recruit black professors without doctorates from the historically black campuses and place them in Ph.D. programs at the research institutions. It will provide them with $5,000 a year in addition to the fellowships sponsored by their universities. Support for undergraduates entering the program will total $3,000 a year.

In 1985-86, eight professors and three students began doctoral programs through the consortium. This year the consortium has identified 177 students with good grades and forwarded their names to the graduate institutions. The goal is to enroll at least 25 students and 10 faculty members in fall 1987, says Leroy Ervin, who directs the program from the University of Georgia.

While the program is designed to "strengthen and preserve" the historically black colleges, it will in the long run increase the pool of potential black professors for institutions nationwide, Mr. Ervin says.

Professors who emerge with doctorates, he adds, will "turn out a better undergraduate, and more of those students will ultimately be accepted into better graduate programs."

A Cyclical Endeavor

Trying to increase the number of minority professors is a cyclical endeavor. Yet, some recruiters say, the challenge means going further back in the pipeline—to high school and to families.

"Most black students, unless they come from a very affluent family, don't know anything about graduate school," explains Mr. Tribble of the McKnight program. "They don't know that no one in this country pays the full costs to get a Ph.D.

"When they're asked, 'What about getting a Ph.D.?' they think about all the debt they already have and the debt they're going to have, and say, 'No, I can't handle that.' "

He adds: "You've got to try to tell them, 'You are not limited to just your teaching salary. There will be consulting opportunities out there.' You've got a real educational job to do on a lot of our students to tell them what graduate school is all about."

Ms. Zak of the University of California believes that higher education must be more sensitive to the sacrifices made by minority students who select academic careers.

"There's a real problem with young people from socioeconomically deprived circumstances, whom we're asking to turn their backs on their cultures," she says. "The academic community has to offer them an alternative community, an alternative system of support."

Without such efforts—both financial and personal support—higher education will have failed to meet one of its major challenges, says Ms. Zak.

"What's this country going to look like in the next couple of decades if we have a population that's 55 or 60 per cent non-white, and all the educated people, all the leaders, are white?" she says.

"We're going to have a serious sense of social dislocation. In higher education we can't just say, 'What if?' "

Women Go to Graduate School in Record Numbers

Continued from Page 1

goal takes on added importance, they say, because the majority of undergraduate students are now female.

However, lingering sexual bias in hiring and promotion decisions, as well as a shortage of women with doctorates in scientific fields, may cloud the promise that women may achieve parity.

"I strongly suspect that there won't be any great influx of women in the 90's," says Mary W. Gray, professor of mathematics, statistics, and computer sciences at American University and president of the Women's Equity Action League. "The last time there was a big surge of hiring in the 60's and 70's, women were not hired in numbers equal to their proportion. I'm not overly optimistic that it will happen this time."

"It's not a *fait accompli*," adds Sandra K. Norton, dean of the School of Arts and Sciences at Eastern Connecticut State University. "Administrators have to begin making preparations now for enriching the teaching faculty. We haven't really considered it."

A nagging concern for many academics is whether women will be hired for choice tenure-track positions, and, later, promoted to full professor. They worry that the present hiring pattern will continue.

Today, women tend to be concentrated in the academic "proletariat"—in part-time, temporary, and non-tenure-track appointments. Nationally, they make up 27.5 per cent of the full-time faculty and only 11.4 per cent of the full professors, according to the U.S. Department of Education's Center for Statistics.

"My question is, How many of the retiring faculty members will be replaced by part-timers?" says Bernice R. Sandler, director of the Association of American Colleges' Project on the Status and Education of Women. "We may see an influx of women but not into the right positions.

"What may happen depends on how many men are looking for jobs," Ms. Sandler adds. "If academe is not seen as a good place for men, then women's chances will be better."

Says Ms. Gray, "There's a tendency on the part of those who do the hiring to reproduce themselves. It was mostly white males who were hired in the boom days. Some are not terrifically committed to affirmative action."

Undersupply in Some Fields

Increasingly, academic administrators worry that faculties in some disciplines will remain mostly male. In such fields as mathematics, the physical sciences, and engineering, the undersupply of women with doctorates is critical.

"Over all, the picture for women looks pretty good, but when you look at specific fields, it's pretty bleak," says Marsha Lakes Matyas, project director of the Women in Science program of the American Association for the Advancement of Science. "You can almost count on your fingers the women in chemistry, physics, and engineering."

To attract talented young women into these fields, universities are offering fellowships and special research awards, as well as moral support through "mentorship" programs. They are also trying to change women's attitudes about mathematics and science at the junior- and senior-high-school levels.

Some efforts are paying off.

According to the Center for Statistics, the number of women in graduate school is now comparable to the number of men. In 1984-85, for example, 503,525 women were working toward advanced degrees. That was 50.7 per cent of the total graduate-school enrollment.

DOUGLAS GORAL/SIU

Mary Gray: "I strongly suspect that there won't be any great influx of women in the 90's."

More change is evident at the doctoral level. While the number of Ph.D's awarded to men has dropped since the 1970's, the number awarded to women has skyrocketed. In 1985, women earned 10,699 doctorates, up one-third since 1977. In contrast, the number of men with doctorates has declined by 14 per cent since 1977.

Biggest Areas of Growth

The biggest areas of growth for women have been education, health sciences, psychology, and language and literature. Women now earn 50 per cent or more of the doctoral degrees in those fields.

Women's representation in mathematics and the sciences, however, remains spotty. According to the National Research Council, women received just 9 per cent of the 1,078 doctorates awarded in physics and astronomy in 1985. In mathematics, they earned 15 per cent of the Ph.D.'s and in chemistry, 20 per cent.

Problems for female scientists don't end in graduate school. Women with science doctorates have a higher unemployment and underemployment rate than men, according to Ms. Matyas of the A.A.A.S. She says, "There's a pool of women sitting out there, all ready, that's not being utilized."

Most administrators acknowledge that the situation in the sciences is a vicious circle. Until more women are visible in the faculty ranks, woman students will not enter those fields. But the supply of potential faculty members remains low.

"Part of the problem is that these attitudes go so far down the pipeline," says Victoria A. Fromkin, vice-chancellor of graduate programs and dean of the graduate division of the University of California at Los Angeles. "Women in high school are looked upon as freaks if they're interested in science."

M. Elizabeth Tidball, who has studied the relationship between female faculty members and academic success, believes the lack of role models will have a detrimental effect on future recruitment.

"There is a correlation between the number of woman faculty members and the number of woman graduates who go on to receive science doctorates," says Ms. Tidball, professor of physiology at George Washington University's medical school. "We need more female faculty members for their sake, just to encourage them to go on."

Incentives Offered

Although the task is a difficult one, administrators at some universities are concentrating on luring women into scientific fields.

One program beginning this fall in the California State University system will provide $500,000 in loans to assist women and members of minority groups who are studying science and mathematics at the graduate level.

The university hopes that more women and minority-group members will become faculty members, and it is making it easier for them to do so. For each year a graduate teaches in the system after receiving a doctorate, the university will forgive 20 per cent of the loan.

"The demographics show that women and minorities tend to avoid mathematics and the hard sciences," says Caesar J. Naples, vice-chancellor for faculty and staff relations. "That's where we think there will be significant room for employment in the future. If present trends continue, we will have a significantly white male faculty. It's a waste of brain power."

Stanford University is trying another approach. Undergraduate science majors there are paired with graduate-student mentors, who offer advice and encourage the undergraduates to study for doctoral degrees. The mentors also try to expose the students to scientific careers through trips to laboratories on the campus and in the community.

"They try to give the students a sense of what being in science is all about," says Andree Sursock, coordinator of freshman advising. "If someone gets a C in chemistry, she can talk to her mentor and find out that it's okay. People get C's and still go on to graduate school."

Recruiting in High Schools

Other universities, recognizing that students make decisions about careers early, are taking their recruitment campaigns to the high schools. The University of Michigan, Mills College, and the University of Nebraska at Lincoln are among the institutions that conduct seminars to promote scientific careers for high-school girls.

The University of Kansas is addressing the problem at the junior-high-school level. The Career Oriented Modules to Explore Topics in Science, or COMETS, distributes textbook supplements to students in grades five through nine. The materials show women working in scientific fields.

"Doors can get closed early on," says Walter S. Smith, a professor of science education and director of the project. "We zero in on young girls to show them there are opportunities for women.

"We figure that junior-high kids will be ready for graduate degrees in the 90's," he adds. "But if we don't keep women in the pipeline, they won't go on to bachelor's degrees, let alone do graduate work."

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